



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/577,967	05/25/2000	Rafiul Ahad	50277-456	7503
	7590		OID-1999-048-0	
Ditthavong & Carlson P C 10507 Braddock Rd Suite A Fairfax, VA 22032			EXAMINER STEELMAN, MARY J	
			ART UNIT 2122	PAPER NUMBER 5
DATE MAILED: 01/30/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/577,967

Applicant(s)

AHAD, RAFIUL

Examiner

Mary J. Steelman

Art Unit

2122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05/25/2000, 12/19/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-17 are pending. Per Applicant's request, in Pre-Amendment A, filed 05/25/2000, the second claim 13 is renumbered to correctly reflect the claim number 14.

#### ***Drawings***

2. Figure 1, item 117, is not referenced in the Specification.

#### ***Specification***

3. Please update the information on page on of the Specification.
4. Indicate any copending Applications and related patents:

#### **Arrangement and Contents of the Specification**

The following order of arrangement is preferable in framing the specification.

See also MPEP § 608.01(a). Each of the lettered items should appear in upper case, without underlining or bold type, as section headings...

(B) Cross-reference to related applications. (See MPEP § 201.11).

5. The use of the trademark JAVA has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

#### ***Claim Objections***

Art Unit: 2122

6. Claim 6 is objected to because of the following informalities: Claim 6 lacks a period at the end of the sentence. Semicolon should be replaced with a period. Appropriate correction is required.

Claim 7 recites, "...primary key columns based a list..." should be --...primary key columns based on a list...-- Add the word 'on'.

Claim 8 recites, "...columns based a list...", should be --...columns based on a list...-- Add the word 'on'.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 3, 9, and 13 are rejected under 35 USC 112, Second Paragraph.

9. 7.35.01 Trademark or Trade Name as a Limitation in the Claim

Claim 3 contains the trademark/trade name JAVA. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case,

Art Unit: 2122

the trademark/trade name is used to identify/describe a byte code instruction set programming language and, accordingly, the identification/description is indefinite.

10. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites, "...contains another object belonging to another class...creating another persistent agent..." and "...storing the other object in the persistent object store based on the other persistent agent." It is not clear whether "another object" is the same as "the other object" and whether "another persistent agent" is the same as "the other persistent agent". A suggested rewording is:

9. The method according to claim 1, wherein the object contains a second object belonging to a second class, said method further comprising the steps of:
  - creating a second persistent agent based on said second class; and
  - storing said second object in the persistent object store based on said second persistent agent.

For examination purposes, Examiner will treat claim 9 as if it reads according to the above suggested wording.

11. Claim 13 recites the limitation "said persistent agent" in line 3. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,374,254 to Ng et al.

Per claims 1, 13, 14, 15 and 17:

-creating a persistent agent based on a class, said persistent agent providing an interface for persistently storing the object in a persistent object store; (Col. 6, lines 13-35. "...database related instructions may use database connectivity module (for sessions) DBC to connect object-oriented database runtime module with database information. DBC provides an application programming interface (API) (persistent agent) for programmers to access a database...the JDBC™ database connectivity module is one type of DBC that provides an interface between Java™ applications and a database...It consists of a set of classes (based on a class) and interfaces (providing an interface)...It provides a standard API for tool/database developers and makes it possible to write database applications (persistent object store)." Also, col. 5, lines 10-11, "Classes associated with a database are considered "persistence-capable" classes.")

-storing the object in the persistent object store based on the persistent agent. (Col. 5, lines 13-16, "If an object is a persistent instance of a persistent-capable class, the object is stored in the database and is accessible to many different applications.")

Art Unit: 2122

Per claim 2:

-modifying the object in the persistent object store based on the persistent agent. (Col. 8, lines 52-54, "...stored procedures (based on the persistent agent) can be generated to perform routine operations on objects such as Add, Delete, Modify and Retrieve data entries (objects) in the database (persistent object store).") )

Per claim 3:

-instantiating the persistent agent based on a fully qualified name for a JAVA class. (Col. 5, lines 43-45, "Processor executes instructions (instantiates) associated with applications contained in memory..." and lines 51-53, "Memory includes...a database connectivity (DBC) module..."  
Also see response to claim 1 above, "DBC provides an application programming interface (API) (persistent agent) for programmers to access a database..." and "It provides a standard API for tool/database developers and makes it possible to write database applications (persistent object store) using a pure Java<sup>TM</sup> API (based on a fully qualified name for a JAVA class).")

Per claim 4:

-the persistent object store includes a relational database; (Col. 5, lines 20-22, "Object-database server provides a conduit between a relational database connected to database server an object-oriented applications...")

Art Unit: 2122

-storing the object in the persistent object store includes the step of storing the object in at least one database table corresponding to the class. (Col. 8, lines 1-3, "...the class-to-database mapping maps (stores) one class in the object-oriented application to one table in the database.")

Per claim 5:

-determining if the at least one database table corresponding to the class has been created; if the at least one database table is determined not to have been created, then creating the at least one database table. (Col. 8, lines 12-18, "Tool generates a schema to create (creating the at least one database table) the tables in a database. A schema includes a description of the tables in a database (if created) and their various attributes. A user uses the schema to generate a database. Multiple schemas can be organized as separate entries in a catalogue. The catalogue names each schema with a unique label to distinguish the schemas from each other.")

Per claim 6:

-storing values of at least some of the fields in corresponding columns of the database table. (Col. 7, lines 64-65, "Tool creates tables in the database having rows and columns corresponding to the one or more classes." Also, col. 8, lines 5-7, "...each column corresponds to each of the multiple fields.")

Per claim 7:



Art Unit: 2122

-designating at least some of the columns as primary key columns based on a list of corresponding field names of the object. (Fig. 8 and Col. 9, lines 28-38, "...primary keys can also be used to represent the one-to-many relationships between classes...")

Per claim 8:

-building an index on at least some of the columns based on a list of corresponding field names of the object. (Col. 8, lines 19-29, "...specify which fields in an object should be indexed in the database for fast access. The fields specified by the user are logically organized by tool (building an index) in an index group.")

Per claim 9:

-creating another persistent agent based on the other class; storing the other object in the persistent object store based on the other persistent agent. (Col. 8, lines 8-11, "Alternatively, more complex class-to-database mappings can be used to map classes to tables such as mapping...multiple classes to a single table.")

Per claim 10:

-the step of creating the persistent agent includes the step of creating the persistent agent based on the session. (See figs. 1 & 2. Col. 5, lines 43-45, "Processor executes instructions associated with applications contained in memory..." and lines 51-53, "Memory includes...a database connectivity (DBC) module..." and col. 6, lines 13-35, "DBC provides an application programming interface (API) (persistent agent) for programmers to access a database..." and "It

Art Unit: 2122

provides a standard API for tool/database developers and makes it possible to write database applications using a pure Java™ API...DBC can be used to establish a logical connection (session) with a database..." When a 'session' is desired the DBC is used and provides an interface (a persistent agent), for database access.)

Per claims 11 and 16:

-creating a persistent agent based on a class, said persistent agent providing an interface for retrieving a set of objects from the persistent object store; (Col. 10, lines 1-6, "Tool also includes a table-to-class mapping method to transform tables in a database to one or more classes..." (retrieve a set of objects from the persistent object store) )

-retrieving the set of objects in the persistent object store based on the persistent agent. (Col. 10, lines 53-60, "Tool also generates default methods to operate on each field in a class...A 'get' method (retrieve) ...a 'set' method...to manipulate field values in persistent objects..." )

Per claims 12 and 14:

-retrieving the set of objects in the persistent object store based further on a predicate. (Col. 10, lines 40-52, "Tool also generates object query language (OQL) routines for use by objects generated from a particular class...query objects using an object-oriented programming language interface...a query on a particular class will return all objects (retrieving the set of objects) in that class as a connection of objects which match the query criteria (using a predicate).")

Art Unit: 2122

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552.

The fax phone number is (703) 872-9306 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mary Steelman



01/23/2004



**TUAN DAM  
SUPERVISORY PATENT EXAMINER**